

REMARKS

The Office Action mailed November 2, 2009, has been received and its contents carefully noted. Of the pending claims, claims 1, 3-5, 7-9, 11, 14-16, 18, 19, 21, 22, 24 and 25 were rejected and claims 2 and 12 were withdrawn from consideration. By this Response, claims 1, 4, 11, 14 and 21 have been amended and claims 26-33 have been added. Support may be found in the specification and the claims as originally filed. See, for example, Figures 1-2 and the specification on page 12, line 32 to page 13, line 1 and on page 13, lines 24-17. No statutory new matter has been added. Therefore, reconsideration and entry of the claims, as amended, are respectfully requested.

Added Claims

It is understood that the above-mentioned addition of new claims 26-33 results in four new claims for which previous payment has not been made. Hence, an additional \$208 is submitted herewith in addition to the other fees now paid.

Interview Summary

Applicants appreciate the Examiner taking the time to conduct a telephonic interview on February 24, 2010. During the interview, Applicants' representatives emphasized that the relatively higher HF path omits a filter between the first matching unit and the electrode. This was understood as well received by the Examiner. Applicants noted that in the art, it is conventional that a filter is provided between each matching unit and the process chamber in a process system that applies different high frequencies, from two different HF sources, to the same electrode within the chamber. The undersigned pointed out that Fig. 1 of Suemosa corroborates this point very effectively. We then explained that according to the instant invention, as exemplified in the embodiment of Figure 2, the first matching unit 80 is connected directly to the power supply rod 34, without a filter (such as filter 104) therebetween. The Examiner indicated that she believed that claim amendments which clearly indicate that the first matching unit is connected directly to the power supply would overcome Dible, as now applied. The Examiner also recommended adding further dependent claims which are directed to the

specific structure and components of the first box 72. Applicants appreciate the Examiner's thoughtful consideration and recommendations.

Objection to the Claims

The Examiner objected to claim 1 because a comma should be placed at the end of line 18 (after the words "first matching unit").

Applicants respectfully submit that the objection to claim 1 may be withdrawn in view of the amendment to the claims.

Rejection under 35 U.S.C. 103(a)

The Examiner rejected claims 1, 8, 9, 11, 21, and 24 under 35 U.S.C. 103(a) as being unpatentable over Dible (US 6,411,490) in view of Nakano (US 20030056901). The Examiner rejected claims 3 and 25 as being unpatentable over Dible in view of Nakano and further in view of Zhao (US 5,643,364). The Examiner rejected claims 4, 5, 7, 14-16, 18, 19, and 22 as being unpatentable over Dible in view of Nakano and further in view of Reyzelman (US 6,703,080).

Applicants respectfully submit that the cited documents, alone or in combination, do not teach or suggest the claimed invention. Specifically, not one of the cited documents teaches or suggests that the absence of a filter between a matching unit and the process chamber in a process system that applies different high frequencies, from two different HF sources, to the same electrode within the chamber. Thus, none of the cited documents teaches or suggests directly connecting a first matching unit to the power supply rod in accordance with the instant invention as set forth in independent claims 1 and 11.

According to the state of the art (prior to the instant invention), where two high-frequency (RF) electric power sources (A, B) and two matching units (A, B) are arranged, and where high-frequency power from the first power source (A) is applied to a process chamber through the first matching unit (A), and a different high-frequency power from the second power source (B) is applied to the process chamber through the second matching unit (B), filters are provided for each path of electrical power. That is, in such prior art configurations, a first filter is provided between the first matching unit (A) and the process chamber for cutting off frequency components from the second source (B), and second filter is provided between the second

matching unit (B) and the process chamber for cutting off frequency components from the first source (A). An example of this is shown in Suemasa (US 6,089,181) with filters 146 and 158.

On the other hand, according to the present invention, it is true that a filter is provided between the second matching unit and the first electrode, but there is no filter between the first matching unit and the first electrode. This is because the resonance part in the first matching unit is made to filter out second high-frequency power components. Since there is no filter between Applicants' first matching unit and first electrode, the distance therebetween can be shortened. This reduces power loss from the first matching unit to the first electrode. This significantly improves transmission efficiency for the first high-frequency power.

Nowhere do the cited documents, alone or in combination, teach or suggest such direct connection between the first matching unit and the first electrode as set forth in claims 1 and 11. Therefore, Applicants respectfully submit that the claims, as amended, are unobvious and the rejection under 35 U.S.C. 103(a) should be withdrawn.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Official action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 033082.194.**

Respectfully submitted,
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